

Application No. 09/908,963
Amendment dated November 11, 2003
Reply to Office Action of November 4, 2003

REMARKS

Claim 1 stands rejected under 35 U.S.C. § 102(e) over Komatsu. The following remarks are directed solely to issues which were newly raised by the Examiner in the Final Rejection. Specifically, the Examiner contends that in Komatsu [see 0027 of the Komatsu reference] a downward link estimation unit for estimating the downward channel on the basis of the received downward signal leads on determining channel prediction terms. Likewise, [see 0028 of the Komatsu reference] an upward link estimation unit for estimating the upward channel on the basis of the received downward signal leads on different channel estimation terms derived corresponding to the common pilot channel signals.

However, use of known pilot signals found in a pilot channel for deriving channel estimation terms that determine channel prediction terms to enable control of future transmission patterns is not taught by the Komatsu reference. Without the specific use of common pilot channel signals, let alone in the manner claimed in claim 1, Komatsu fails to teach or suggest or provide a specific hint as to pilot channel signals. Accordingly, claim 1 limitations are not anticipated by the Komatsu reference.

In fact, in the Komatsu reference there is no teaching that the base station transmits a pilot channel having one or more pilot signals to the mobile terminal, let alone known common pilot channel signals in a way that enables accurate estimation of channel parameters. Thus, absent a precise channel state knowledge, Komatsu does not teach or suggest adequately compensating for certain transmission and signal capture-related distortions.

In contrast, to perform channel estimation at the mobile station, for example, the base station may transmit a pilot channel. Using the pilot channel, a targeted mobile user may acquire desired channel parameters for acquiring appropriate timing and other information. The pilot channel may include a first common pilot channel signal associated with a first antenna and a second common pilot channel associated with a second antenna. Upon receipt of the first and second common pilot channel signals, a processor using a channel controller application may

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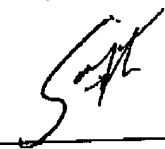
process the first and/or second transmission signals. More so, first and second channel propagation paths associated with the first and second antennas may be separated based on first and second common pilot channel signals. Specifically, to compute the feedback information (FIB), the mobile transceiver 14 uses the common pilot channel (CPICH) to separately estimate the channels seen from the first and second antennas 30(1), 30(m). See Applicant's specification on page 20, lines 20-23.

In this manner, a *prima facie* case of obviousness is not established. Therefore, the Examiner is respectfully requested to reconsider the § 102(e) rejection of claim 1. For the similar reasons, the Examiner is also respectfully requested to consider the rejection of independent claims 15 and 22. These claims are deemed patentable in view of the comments presented in the context of claim 1. The Examiner is respectfully requested to consider all the pending claims.

In view of these remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested.

Respectfully submitted,

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